

(U.S. Patent No. 5,838,671, hereinafter "the '671 patent"). Claims 4-5, 7-12 and 15-23 were rejected under 35 U.S.C. §103(a) as unpatentable over H'mimy in view Ishikawa and Egner et al. (U.S. Patent No. 6,223,041, hereinafter "the '041 patent").

In response to all the rejections under 35 U.S.C. §103(a), Applicants respectfully request reconsideration of these rejections and traverse the rejections as discussed next.

The present application is directed to a method and system for controlling access of a subscriber station to a wireless communication system. In an exemplary embodiment of the present invention, the system decides to grant or deny access of the system to a subscriber station to the wireless communication system based on a comparison of a measured first performance indicator to an established blocking threshold.

The '554 patent teaches "reassigning transmission channels in a wireless communication network based on interference levels and channel quality using forwards and backwards reassignment."<sup>1</sup> The '554 patent further teaches that the "channel quality and interference level of the preassigned transmission channel are continually monitored, and a transmission channel is reassigned to the incoming calls when the monitor levels of the channel quality and interference levels change

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<sup>1</sup> See the '554 patent at col. 2, lines 31-34.

beyond a set predetermined threshold."<sup>2</sup> As admitted in the Office Action, the '554 patent does not teach deciding whether to grant or deny access to a subscriber station seeking access to a communication system

The Office Action attempts to remedy this deficiency based on the proposition that the '671 patent discloses the above feature<sup>3</sup>, and that it would have been obvious to modify the '554 patent by importing this feature from the '671 patent to arrive at Applicants' claimed invention. Applicants respectfully submit, however, that the '671 patent fails to disclose or suggest "deciding whether to grant or deny access to the subscriber station seeking access to the wireless communication system based on a comparison of the first performance indicator to the obtained blocking threshold value,"<sup>4</sup> as recited in claim 1.

The outstanding Office Action relies on the '671 patent's text at column 6, lines 48-67, column 7, lines 1-19, and column 12, lines 44-54. The first passage of the '671 patent recites that a control device 115 checks whether a free spread code is currently available or not at step S15. When all of the spread codes are currently in use, the call admission control device 115 rejects the call admission and then the operation returns to the beginning. However, if there is an available free spread code at step S15, the call admission control device asks the communication channel control device 125 whether a free baseband

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<sup>2</sup> See the '554 patent at col. 2, lines 48-53.

<sup>3</sup> See the Office Action at page 2, third paragraph to page 3, first partial paragraph.

<sup>4</sup> See the last paragraph of claim 1 of the present application.

processing unit is available or not at step S19. When there are no currently available baseband processing units, the communication channel control device 125 notifies the call processing control device through the call admission control device 115, rejecting the call admission at step S17. The operation then returns to the beginning.

The second passage, column 7, lines 1-19 recites when there is a free transceiver 111 at the step S19, the call admission control device 115 reads out the number of currently connected users C in this base station 11 from the memory 119 at the step S21, and compares this number of currently connected users C with the maximum number of simultaneously connected users N stored in the memory 119 at the step S23. The device 115 then compares the connected users C, to the simultaneously connectable users N, and decides whether or not to accept the call admission. For example, when N is less than C, the call admission control device rejects the call admission. Likewise, when N is greater than C, the call admission control device carries out the call admission, and then the operation returns to the beginning.

The third passage recites an explanation of a calculation used to calculate the probability for a call to be admitted without blocking when a number of simultaneous users (N) are present.

Accordingly, these passages recite a comparison of N (the simultaneously connected users) to C (the currently connected users)

which is *not* "deciding whether to grant or deny access to the subscriber station seeking access to the wireless communication based on a comparison of the first performance indicator to the obtained blocking threshold value,"<sup>5</sup> as would be required to meet Applicants' feature recited in claim 1. Further, the Office Action states that this is a "comparison"<sup>6</sup> however, this comparison falls short of being a comparison of "the first performance indicator to the obtained blocking threshold value." Further, the first performance indicator of claim 1 is a "reverse link"<sup>7</sup> performance measure, not a comparison of the simultaneously connected users (N) to the currently connected users (C).

Therefore, even if the combination of the '554 patent and the '671 patent is assumed to be proper, the combination fails to teach each and every element of the claimed invention. Specifically, the combination fails to teach the claimed comparison of "deciding whether to grant or deny access to the subscriber station seeking access to the wireless communication based on a comparison of the first performance indicator to the obtained blocking threshold value" as recited in claim 1. Accordingly, Applicants respectfully traverse, and request reconsideration of the rejections of claim 13.

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<sup>5</sup> See claim 1 of the present application.

<sup>6</sup> See Office Action.

<sup>7</sup> See the specification of the present application as one non-limiting example at page 4, lines 5-10.

Applicants assert that even if the '554 patent was combined with the '571 and '041 patents, the proposed combination would not teach the claimed invention because independent claims 12 and 21 recite analogous limitations to claim 1 as discussed above. Claims 2-11, 13-20 and 22-23 depend from claims 1, 12 and 21, respectively, and by virtue of their dependencies, are deemed to be patentably distinguishable for at least the reasons discussed above.

Applicants respectfully further traverse all 35 U.S.C. §103(a) rejections because there is no sufficient evidence of record for the required motivation to modify the '554 patent by incorporating the '671 comparison system for the following reasons.

The outstanding Office Action states that the proposed modification would have been obvious "because this would allow a wireless communication to maintain a specific level of performance."<sup>8</sup>

The record, however, fails to provide the required evidence of a motivation for a person of ordinary skill in the art to perform such modification. While the '671 patent may provide a reason for comparison, the '671 patent fails to suggest why a person of ordinary skill in the art would be motivated to compare the number of currently connected users C in the base station from the memory 119 at step S121 with the maximum number of simultaneously connected users N stored on the memory 119 at step S23 in a device such as the one disclosed in

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<sup>8</sup> See the Office Action at page 3, first partial paragraph.

the '554 patent. The '554 patent further provides an algorithm including a discrimination function adapted to discriminate the frequencies of the network to determine which transmission channels are less than a predetermined blocking threshold of interference.<sup>9</sup> However, the '671 patent does not suggest that an additional feature is needed to achieve its intended goal of flexibly dealing with a traffic variation or a propagation state change while guaranteeing a predetermined communication quality. Moreover, the '671 patent does not suggest that an algorithm including a discrimination function adapted to discriminate the frequencies of a network to determine which transmission channels are less than a predetermined blocking threshold of interference, such as the one disclosed in the '554 patent, would be desired.

Similarly, the '554 patent states that its structure already achieves its goal of higher capacity over a network by making the channel quality uniform over the entire network. The '554 patent does not suggest that further improvement is desired, nor that another feature should be added to improve upon its method and device for reassigning a transmission channel based on interference level and channel quality measurements. In particular, the '554 patent does not suggest adding the comparison feature comparing the currently connected user C in the base station to the number of simultaneously connectable users N, such as those disclosed in the '671 patent.

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<sup>9</sup> See the '554 patent at column 3, lines 10-14.

The '554 and '671 patents, therefore, do not provide the motivation to perform the proposed modification of the '554 device. In other words, an attempt to bring in the isolated teachings of the '671 patent into the '554 device would amount to improperly picking and choosing features from different references without regard to the teachings of the references as a whole. While the required evidence of motivation to combine need not come from the applied references, the evidence must come from *somewhere* within the record. In this case, there is nothing in the record supporting the Office Action's proposed modification of the '554 patent. The Office Action only includes the overly broad statement that "this would allow a wireless communication system to maintain a specific level of performance."<sup>10</sup>

In rejecting a claim under 35 U.S.C. §103(a), the United States Patent and Trademark Office must support its rejection by "substantial evidence" within the record and by "clear and particular" evidence of a suggestion, teaching, or motivation to combine the teachings of different references. As discussed above, there is no substantial evidence, nor clear and particular evidence within the record of motivation for modifying the '554 patent by incorporating the '671 patent's comparison system. Without such motivation and absent improper hindsight

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<sup>10</sup> The first partial paragraph of page 3 of the Office Action.

reconstruction<sup>11</sup>, a person of ordinary skill in the art would not be motivated to perform the proposed modification, and claims 1-23 are believed to be non-obvious and patentable over the applied prior art.

Regarding the rejections of claims 4-5, 7-12 and 15-23 as unpatentable over the '554 patent in view of the '671 patent and further in view of the '041 patent, Applicants traverse these rejections as discussed above, because there is no adequate motivation to combine the primary '554 and secondary '671 references.

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<sup>11</sup> See MPEP 2141, stating, as one of the tenets of patent law applying to 35 USC 103, that "[t]he references must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention."



### **CONCLUSION**

In view of above remarks, reconsideration of the outstanding rejection and allowance of pending claims 1-23 is respectfully requested.

Should there be any outstanding matters that need to be resolved in the present application before allowance thereof, the Examiner is respectfully requested to contact Timothy J. Maier at (703) 668-8024.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. 1.16 or under 37 C.F.R. 1.17; particularly, extension of time fees.

Respectfully submitted,

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